

REMARKS

Claims 1 to 10 are pending in the Application. Claims 1-10 are rejected. The amendments to claims 1 and 10 are supported by the Specification, page 11, lines 5-6 and the amendment to claim 5 is supported by the Specification, page 2, lines 8-13. The limitations of claim 4 are incorporated into claims 1 and 10 resulting in the cancellation of claim 4.

Reconsideration and withdrawal of the rejection of record is requested in view of the following comments:

Rejection under 35 USC §112, second paragraph

Claim 5 is rejected under 35 USC §112, second paragraph, as being indefinite in that there is insufficient antecedent basis for the limitation "copper ion" in line 2.

Applicants' position is that there is adequate antecedent basis for the limitation "copper ion" in claim 5. Claim 5 describes the "chelated metal compound" as being a 1:1 complex of "amine chelating agent" and "copper ion". Claim 4 describes the "chelated metal compound" as comprising a metal ion (e.g. copper) and one or more amine chelating agents. Claim 3 describes the metal ion as selected from one or more of copper, zinc, ferric, magnesium, cobalt, and silver ions. Thus, there is sufficient antecedent basis for the limitation "copper ion" in claim 5. However, in order to advance prosecution of the Application, Applicants have amended claim 5 to indicate that the chelated metal compound is the chelated metal ion compound.

Rejection under 35 USC §103(a)

Claims 1-10 are rejected under 35 USC §103(a) as being unpatentable over Gaglani et al., US 5,916,930 in view of Hsu US 5,292,763 in that Gaglani teaches stabilized biocidal aqueous or organic solvent-based alkyd compositions containing halopropargyl compounds, a transition metal drier, a chelating agent, and various known adjuvants and Hsu discloses synergistic compositions of isothiazolones and halopropargyl compounds.

Gaglani discloses compositions comprising a halopropargyl compound and a chelating agent. The compositions are useful to stabilize the halopropargyl compound when it is added to an alkyd composition containing a transition metal drier. However, there are two significant differences between Applicants' invention and the invention disclosed by Gaglani.

First, the compositions disclosed by Gaglani are alkyd paint compositions. That is, they are solvent based compositions. Gaglani specifically comments that haloalkynyl compounds are used in both aqueous and solvent based coating materials. However, Gaglani only refers to instability problems occurring in alkyd coating compositions containing transition metal driers. (See col. 2, lines 22-30). The discovery by Gaglani was that adding a chelating agent to such

alkyd compositions significantly retards the degradation of the biocidal agent. (See col. 2, lines 30-39). This is presumably because, upon addition of the biocide plus chelating agent composition to the alkyd composition containing the metal ion, the chelating agent complexes with the metal. Applicants' compositions, on the other hand, are not solvent based (i.e. alkyd) compositions but, rather, are aqueous compositions requiring 40-99 weight percent water. There is no disclosure, teaching, or suggestion in Gaglani that addition of a chelating agent will be effective to stabilize haloalkynyl compounds which are unstable in aqueous compositions.

Second, and most important, the compositions disclosed in Gaglani are of a biocide plus chelating agent which is subsequently added to the alkyd formulation containing a transition metal drier or for compositions in which the chelating agent is added to the alkyd formulation containing the transition metal drier plus biocide. (See col 6, lines 40-42 and 49-56). Applicants' compositions require that the metal ion be added to the composition already in the form of a chelated ion. (see claim 1, part b and claim 9, part b). Applicants have discovered that there is a significant difference between adding an already complexed metal to the composition compared with adding the metal ion and the complexing agent separately. (See the Specification, page 10, lines 9-15 and Table 2, particularly example 2-5C). It is clear that this unexpected result distinguishes Applicants' invention from the disclosure of Gaglani and that this result would not be predicted by one of ordinary skill in the art based upon the disclosure of Gaglani.

Hsu merely discloses compositions comprising 4,5-dichloro-2-octyl-3-isothiazolone and 3-iodo-2-propynylbutylcarbamate which are synergistic. There is no suggestion in the disclosure of Hsu that such compositions are not stable and would require some sort of stabilization. Thus, there would be no motivation to one skilled in the art to seek a method to stabilize such a combination.

Since Gaglani does not disclose, teach, or suggest Applicants' invention, there would be no motivation to one skilled in the art to combine what is disclosed in Gaglani with the disclosure of Hsu.

Regarding the claimed concentration of active ingredients and water: The concentrations are those contemplated by the inventors to be effective, and stabilized, in the claimed compositions. The concentration of water required by the claims is to ensure that the composition is a water-based composition rather than a solvent-based composition.

Regarding whether or not the transition metal drier is "chelated" to the amine-chelating agent: As noted by the Examiner, based on Gaglani, col. 5, lines 20-22, coordinate bonds are formed. However, as the data from Applicants' Table 2 (see the Specification, page 10) demonstrate, there is a definite difference between merely adding a chelating agent to a composition containing the metal drier (process of Gaglani) and actually adding the chelated metal ion. This difference would not be obvious to one skilled in the art.

With this response, Applicants believe that the rejection has been overcome and the claims are in condition for allowance. Should the Examiner have any suggestions which may put the Application in better condition for allowance, Applicants' attorney is willing to discuss any such suggestions either by phone or at the U. S. Patent and Trademark Office.

Respectfully submitted,

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